WHAT IS CLAIMED IS:

1. An image processing apparatus, comprising:

    a) input means for inputting consecutive image data;

    b) dividing means for dividing the image data into blocks each constituted of a plurality of pixels;

    c) detecting means for detecting a motion vector of each block;

    d) judging means for judging a border block in accordance with the motion vector detected by said detecting means, the border block forming a boundary area between an object area and a background area corresponding to a background of the object area; and

    e) extracting means for extracting image data in the object area in accordance with the border block judged by said judging means.

2. An apparatus according to claim 1, wherein said judging means judges the border block in accordance with an occurrence frequency of the motion vector detected by said detecting means.

3. An apparatus according to claim 2, wherein said judging means classifies blocks into the border block, an object block corresponding to the object area, and a background block corresponding to the background area.

4. An apparatus according to claim 3, wherein said judging means judges a block from which the motion vector having a first largest occurrence frequency was detected, as the background block, and a block from which the motion vector having a second largest occurrence frequency was detected, as the object block.

5. An apparatus according to claim 4, wherein said judging means judges a block from which the motion vector having a third or more largest occurrence frequency was detected, as the border block.

6. An apparatus according to claim 3, wherein said judging means judges a block from which the motion vector having a first largest occurrence frequency was detected, as the background block, and a block from which the motion vector having a second or more largest occurrence frequency was detected and being adjacent to the background block, as the border block.

7. An apparatus according to claim 3, wherein said judging means judges a block from which the motion vector having a second largest occurrence frequency was detected, as the object block, and a block from which the motion vector having a first more largest occurrence frequency was detected and being adjacent to the object block, as the border block.

8. An apparatus according to claim 4, wherein said judging means calculates similarity degrees of the motion vectors of the background and object blocks relative to the block from which the motion vector

5   having a third or more occurrence frequency was detected, and re-classifies the block in accordance with the similarity degrees.

9. An apparatus according to claim 8, wherein the

10   similarity degree is calculated from an inner produce of motion vectors.

10. An apparatus according to claim 8, wherein the similarity degree is calculated from a distance

15   between motion vectors.

11. An apparatus according to claim 2, wherein said judging means re-divides the block divided by said dividing means into second blocks and judges the second

20   block as to whether the second block is the border block.

12. An apparatus according to claim 11, wherein said judging means re-divides the block from which the

25   motion vector having a third or more largest occurrence frequency was detected, into the second blocks.

13.   An apparatus according to claim 12, wherein said judging means re-divides a block from which the motion vector having a second largest occurrence frequency was detected and which is adjacent to the

5   block from which the motion vector having a first largest occurrent frequency was detected, into the second blocks.

14.   An apparatus according to claim 12, wherein

10   said judging means re-divides a block from which the motion vector having a first largest occurrence frequency was detected and which is adjacent to the block from which the motion vector having a second largest occurrent frequency was detected, into the

15   second blocks.

15.   An apparatus according to claim 3, further comprising encoding means for encoding the image data in the object area extracted by said extracting means.

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16.   An apparatus according to claim 15, wherein said encoding means encodes the image data in the background area.

25   17.   An apparatus according to claim 15, further comprising transmitting means for transmitting the image data encoded by said encoding means.

18. An apparatus according to claim 15, further comprising recording means for recording the image data encoded by said encoding means in a storage medium.

5   19. An image processing method comprising the steps of:

a) inputting consecutive image data;

b) dividing the image data into blocks each constituted of a plurality of pixels;

10   c) detecting a motion vector of each block;

d) judging a border block in accordance with the detected motion vector, the border block forming a boundary area between an object area and a background area corresponding to a background of the object area;

15   and

e) extracting image data in the object area in accordance with the judged border block.

20. A storage medium storing program codes for

20   image processing steps, the program codes comprising:

a) codes for an input step of inputting consecutive image data;

b) codes for a dividing step of dividing the image data into blocks each constituted of a plurality of

25   pixels;

c) codes for a detecting step of detecting a motion vector of each block;

d) codes for a judging step of judging a border block in accordance with the motion vector detected by the detecting step, the border block forming a boundary area between an object area and a background area corresponding to a background of the object area; and

e) codes for an extracting step of extracting image data in the object area in accordance with the border block judged by the judging step.